

CHAPTER 6

Summary & Implementation

While the Recycled Water Task Force has identified numerous obstacles and impediments to water recycling in California, it has also found that California has exhibited overall support for water recycling and has in place a very effective regulatory environment to ensure the safe use of recycled water and still allow use at over 4,000 farms, parks, golf courses, commercial and industrial enterprises, and other sites. In most cases, significant obstacles are not present or may be overcome in the inevitable process of integrating the multitude of interests into the planning process for projects.

The emphasis is to improve the way all levels of government function and assist each other and the public to enhance the ability for cost-effective and safe projects to proceed and help satisfy the growing demand for water in California. The Task Force focused its attention on the issues and solutions that it thought would make the most difference and could be effectively implemented. The recommendations of the Task Force have been discussed in the previous two chapters and are analyzed in more depth in the white papers of the six workgroups of the Task Force. They are summarized in Table 4.

As can be seen from the table, if we are to remove the obstacles to water recycling, virtually every entity involved in water recycling activities has a role to play in implementing the recommendations. The time frames for implementation are believed to be realistic, but many factors and priorities of the various entities will come into play that the Task Force could not assess. It is important, however, that the recommendations not be displaced by other priorities and then forgotten. The various agencies need to display their commitment to fulfill these recommendations, even if they need to firmly establish their own timetables.

The fulfillment of the recommendations requires resources and a will to take action. In many cases they call upon all levels of government, including local agencies, to take a different attitude and approach in the conduct of their missions and the development of projects. There is a need for greater willingness to listen to alternative viewpoints and concerns, whether they come from the public or recycled water customers or from other governmental agencies. There is also the need for greater effort to ensure the legal sound-

ness of governmental decisions and to communicate them effectively and respectfully. The three primary agencies involved in assisting this Task Force, DWR, SWRCB, and DHS, should continue their collaboration to insure a timely implementation of the recommendations. It is expected that with DWR taking a leadership role, the other agencies would assign staff to assist in seeing the recommendations reach fruition.

There is tremendous potential for increased use of recycled water in California. The Task Force is grateful for the opportunity to assist the State in fulfilling this potential.



Sand Canyon Reservoir, where recycled water is stored by Irvine Ranch Water District before delivery to customers for nonpotable uses.

Table 4. Summary of Task Force Recommendations.

	<i>Recommendation</i>	<i>Implementing Agency</i>	<i>Time Frame</i>
	* * * Key Recommendations *		
{1.1} Increase State and federal funding for reuse/recycling beyond current sources.			
1. State funding for reuse/recycling should be increased beyond Proposition 50 and other current sources.		Leg./SWRCB	Jul.-Dec. 03
2. The California Water Commission, in cooperation with DWR and SWRCB, is strongly encouraged to seek federal cost sharing legislation for water recycling.		CWC/ DWR/ SWRCB	Jul.03-ongoing
{2.1} Engage the public in an active dialogue using a community value-based decision-making model in planning water recycling projects.			
1. Increase public participation through vigorous outreach, augmenting the notification requirements stipulated by CEQA and NEPA.		SWRCB/DWR BDPAC Local agencies	Jul.03 – ongoing Jan.04 – Jan.05 Jul.03-ongoing
2. Hold more public meetings to gather and supply information at appropriate venues.			
3. Make project decisions that respect and incorporate the community's values and concerns (considering growth, coordination with local planning, environmental justice issues, et cetera).			
4. Convene an independent advisory committee composed of experts in the field and consumers from a variety of viewpoints who have no vested interest to review the proposed project alternatives, its implementation and operation where needed.		Local agencies	Jul.03-ongoing
5. Educate and consider with the public all the alternatives for locally achieving water supply goals.			
6. Local Agencies cultivate and utilize the media opportunities for their projects.			

Table 4. Summary of Task Force Recommendations (Continued).

	<i>Recommendation</i>	<i>Implementing Agency</i>	<i>Time Frame</i>
{2.2} Establish Leadership support for water recycling to include convening a statewide panel to address issues related to indirect potable reuse.			
<u>State Support</u>			
1. Take a leadership role on water recycling			
a. Develop a common language of referring to recycled water treatment levels and uses to improve public discussions.	Leg./DHS	Fall 03-Jul.04	
b. Set a standard signage for regulatory use which increases the public's understanding of recycled water.	Leg./DHS	Fall 03-Jul.04	
c. Develop a consistent position on water recycling	DWR/SWRCB/ DHS	Sep.03-Jan.05	
d. Convey its mission to maximize recycled water use throughout all government levels via interagency collaboration.	DWR/SWRCB/ DHS	Sep.03-Jan.05	
e. Facilitate projects and communicate the rules clearly to local health offices.			
f. Encourage recycled water use by using it in public agency buildings to flush toilets, and to irrigate city parks.	State/local gov.	Jul.03-ongoing	
2. Provide funding for public education and outreach.	State/local gov.	Jul.03-ongoing	
3. Work closely with local agencies on water recycling to include: technical assistance, greater education and clarification on recycled water use policy, coordination of existing and new recycled water informational programs.	DWR/SWRCB/ DHS	Jul.05-ongoing	
<u>Local Government Support</u>			
4. Appropriate local agencies should adopt well-defined local recycled water ordinances.	Local Gov.	Jul.03-ongoing	
<u>Regulatory Agencies Support</u>			
5. Building inspectors, code enforcement officers, etc., should effectively enforce the installation of types of plumbing that would allow the use of recycled water in accordance with local recycled water ordinances.	Local Gov.	Jul.03-ongoing	
6. Convene a statewide independent review panel on indirect potable reuse to ensure adequate health and safety assurance for California residents.	CBDA	Jan.04-Jul.05	

Table 4. Summary of Task Force Recommendations (Continued).

Recommendation	Implementing Agency	Time Frame
{2.3} Convene a Statewide panel to recommend changes to public schools and higher education curriculum.		
a. Develop a comprehensive water education curriculum for each grade (K-12) which incorporates recycled water in the Content Standards for California Public Schools: science standards and/or the history-social science standards.	Board of Ed.	Jul.03-Jan-07
b. Approach institutions of higher education to incorporate recycled water education into their curriculum.	DWR/UC/CSU	Jul.03- ongoing
c. Enhance existing programs, for example those offered through the Water Education Foundation, or other organizations.	DWR	Jul.04- ongoing
{2.4} Adopt a State-sponsored media campaign to increase public awareness and knowledge of recycled water:		
1. Develop a water issues information program for radio, television, and print.	State Agencies	Jul.04-ongoing
2. Work with organizations that have produced videos on water issues, including recycled water, and fund updates and expanded programming and encourage cable TV networks to broadcast these videos regularly throughout the State.	State Agencies	Jul.05-ongoing
3. Prepare op ed pieces for publication in newspapers throughout the State.	State/Local	Jul.04-ongoing
4. Retain an advertising agency/public relations firm to assist in the development of short messages with specific information on urgent topics such as drought, conservation, pollution prevention, water quality, stormwater, wastewater, State Agencies or recycled water including indirect potable reuse. (Emphasis should be inclusive of the locales' diversity).	State Agencies	Jul.04-ongoing
{3.1} California should adopt its own Appendix J of the Uniform Plumbing Code in order to avoid the inconsistencies between the IAPMO version and other California regulations. Encourage adoption by the DWR of the recommended version of Appendix J (included as Appendix D in this report) at the earliest opportunity.		
{3.2} Prepare DHS guidance to achieve more consistent interpretation of State standards.		
1. DHS guidance should be prepared that would clarify the intent and applicability of Title 22, Article 5. If guidance cannot be written to accomplish this, the regulation should be rewritten.	DHS	Jul.03-Sep.05
2. DHS guidance should be prepared that would clarify the requirement for testing in Title 22, Section 60316(a) and stress that alternatives to a pressure test are sufficient in many cases.	DHS	Jul.03-Sep.05
3. DHS should amend Title 22, Article 5 to incorporate inspection and testing requirements consistent with whatever requirements are adopted as part of a California version of Appendix J, as recommended in Recommendation 3.1.1.	DHS	Jul.03-Sep.05

Table 4. Summary of Task Force Recommendations (Continued).

Recommendation	Implementing Agency	Time Frame
{4.1} Health and Safety Regulation -- The Department of Health Services should involve stakeholders in a review of various factors to identify any needs for enhancing existing local and State health regulation associated with the use of recycled water.	DHS	Jul. 03-Jun.04
{4.2} Investigate, within the current legal framework, alternative approaches to achieve more consistent and less burdensome regulatory mechanisms affecting incidental runoff of recycled water from use sites.	SWRCB	Jul. 03-Jan. 04
1. The SWRCB should convene a committee to review the legal requirements of federal and State statutes and regulations that relate to the regulation of incidental runoff and to determine the regulatory and enforcement options that are available to Regional Water Quality Control Boards.	SWRCB	Aug.03-ongoing
{4.3} Create uniform interpretation of State standards in State and county regulatory programs.		
1. The SWRCB should appoint and empower a key person to provide oversight of the water recycling permits issued by the various regional boards. This person would act as an ombudsman to facilitate recycling and arbitrate conflicts.	SWRCB	Plan: Jul.-Oct.03 Imp: Nov.03-on
2. The DHS needs to take steps to ensure the uniform interpretation and application of Water Recycling Criteria in Title 22 of the Code of Regulations and other regulations applicable to water recycling.	DHS	DHS
3. Conduct a legal review to determine whether authority exists for local health agencies to adopt water recycling requirements that are more restrictive than those included in Titles 17 and Title 22.	DHS	Jul.03-Oct.03
4. Investigate the water recycling programs in Florida to determine whether there are concepts that should be adopted in California.	SWRCB/DHS WateReuse	Jan.04-Feb.04
5. The RWQCBs should be more proactive during the planning of recycled water projects so issues can be addressed before design commences.	RWQCB	Jul.03-ongoing
6. Each RWQCB should have a resident expert on water recycling to provide consistency in permitting and coordinate with other RWQCBs in maintaining consistency.	RWQCB	Jul.03-ongoing

Table 4. Summary of Task Force Recommendations (Continued).

<i>Recommendation</i>	<i>Implementing Agency</i>	<i>Time Frame</i>
<p>{4.4} Legislation to increase local flexibility to regulate water softeners.</p> <ol style="list-style-type: none"> 1. Local agencies should be empowered to regulate the discharge of residential water softeners in the same manner as other sources of discharge into sewers. Legislation should be proposed to amend the Health and Safety Code Sections 116775 through 116795 to reduce the restrictions on the local ability to impose bans on or more stringent standards for residential water softeners. 2. On-going or proposed studies on water softeners should continue to be pursued to develop alternatives for salt reduction in recycled water. Funding should be sought for such studies. 3. Within the current legal restrictions, local agencies should consider publicity campaigns to educate consumers regarding the impacts of self-regenerative water softeners and promote the use of off-site regeneration by service companies. They should also consider financial incentives to upgrade older inefficient appliances to the current standards. 	Local Agencies	Jul.03-ongoing
<p>{5.1} Develop a uniform method for analyzing projects and a consistent economic feasibility framework across funding agencies. This could be accomplished by an advisory team of economists, recycled water experts, and stakeholders.</p> <ol style="list-style-type: none"> a. Identify a set of desirable characteristics for an economic feasibility analysis framework based on true benefits and costs for recycled water projects in California. b. Review existing frameworks to find the commonalities and gaps based on the characteristics from a) above; add components to the framework that fill in the gaps. c. Develop a practical and implementable process to identify and include non-market benefits and costs into the framework. d. Develop a mechanism to increase the opportunity for identifying equitable capital and operational funding schemes according to the beneficiaries based on allocation of the benefits and costs in the economic analysis. e. Develop guidance to conduct an economic feasibility analysis. f. Develop a mechanism for information from the economic feasibility analysis to feed into the financial feasibility analysis and funding decision making. g. Develop appropriate benchmarks for comparing the incremental costs of developing recycled water with the cost of developing an equivalent amount through fresh water projects. 	DWR / SWRCB / DHS	Sep.03-Aug.04
<p>{6.1} Expand funding sources to include sustainable State funding for research including research on treatment, testing and monitoring methods, development of innovative/emerging technologies, study of emerging issues and fundamental scientific principles addressing technology, public and environmental health.</p>	Leg./DWR	Jul.-Dec. 03

Table 4. Summary of Task Force Recommendations (Continued).

<i>Recommendation</i>	<i>Implementing Agency</i>	<i>Time Frame</i>
{6.2} Encourage an integrated academic program on one or more campuses for water reuse research and education, which is expected to generate well-educated practitioners on water recycling production, quality, and use.	State	Jul.03-Dec.03
* * * A division of Immunation Research and Education		
{1.2} Develop a revised funding procedure to provide local agencies with assistance in potential State and federal funding opportunities.		
a. The SWRCB will facilitate a newly established Water Recycling Funding Coordination Committee (Committee) to coordinate applicant's funding needs with the appropriate funding agencies.	SWRCB/DWR/ DHS/USBR	Jan.04-ongoing
b. The Committee will establish quantifiable objectives to be used in the review of a proposed project. Objectives shall include 1) the local, regional, and State benefits, and; 2) non-water supply benefits, resulting from the project.		
c. The Committee will work cooperatively with funding agencies, streamlining project selection within one agency while ensuring an open process for setting selection criteria.		
d. The Committee shall maintain a listing of local, State and federally funded projects. The list should include detailed project cost and water supply yield information.		
{1.3} State funding agencies will use information from regional studies to prioritize funding for projects encompassed under a regional plan. The process does not exclude projects where regional plans do not exist.	SWRCB/DWR/ DHS/USBR	Jan.04-ongoing
{1.4} Present information on funding availability through workshops, conferences and on the Internet.	SWRCB	Jan.04 - ongoing
{1.5} Expand funding sources to include sustainable State funding for DWR's technical assistance and research, including flexibility to work on local and regional planning, emerging issues, and new technology.	Legislature	Jul.03-Dec.03
{1.6} Provide funding agencies with the resources to perform comprehensive analysis of past recycling performance (costs and benefits) and projection of future performance.	Legislature	Jul.03-Dec.03
{3.3} Housing and Community Development Department should submit a code change to remove the requirement for the skull and crossbones symbol in Sections 601.2.2 and 601.2.3 of the California Plumbing Code. DWR and DHS should request HCD to initiate the change in time for the California Building Commission's 2004 annual code cycle.	DWR/DHS /HCD	2004 Annual Code Cycle Change

Table 4. Summary of Task Force Recommendations (Continued).

	<i>Recommendation</i>	<i>Implementing Agency</i>	<i>Time Frame</i>
{3.4}	Encourage stakeholders to review the DHS draft changes of the Title 17 Cross-connection Control requirements and comment as appropriate.	DHS	Jul.04-ongoing
{3.5}	Support a thorough assessment of the risk associated with cross-connections between disinfected tertiary recycled water and potable water. The risk assessment would provide a scientific basis for regulations controlling potential cross-connections.	DHS	Jul.04-
{4.5}	Permitting Procedures		
	1. DHS should continue to maintain and update its “California Health Laws Related to Recycled Water - The Purple Book”, which is an excellent resource for the permit requirements related to recycled water projects.	DHS	Jul.03-ongoing
	2. ACWA and CASA should clarify for its members: under what circumstances water and wastewater agencies must seek permits from local land use and building authorities for recycled water projects.	ACWA/CASA	Jul.03-Dec.03
	3. DHS should clarify the requirements for engineering reports to cover multiple sites of similar use.	DHS	Jan.04-Mar.04
	4. State and local tax incentives should be provided to recycled water users to help offset the permitting and reporting costs associated with the use of recycled water.	Legislature and local Agencies	Jul.03-ongoing
{4.6}	Maintain strong source control programs and increase public awareness of their importance in reducing pollution and ensuring a safe recycled water supply.	Local Agencies	Jul.03-ongoing
{5.2}	Encourage local agencies to perform economic analyses of water recycling projects; and include such analyses as two of the funding criteria in State and federal funding programs.	Local Agencies	Jan.04-ongoing
	1. Local agencies are encouraged to perform economic analyses even if they are not seeking State or federal funding.	Funding Agencies	Jan.-04-ongoing
	2. Include a financial and an economic analysis as two of the funding criteria in State and federal funding programs.		
{6.3}	Recommend not reconvening the statewide science-based panel to address indirect potable reuse.		

